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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,481	08/23/2004	Hiroyuki Tachibana	MEIC:175	3526

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ALEXANDRIA, VA 22314-2805

EXAMINER

MACCHIAROLO, PETER J

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/505,481	TACHIBANA ET AL.	
	Examiner	Art Unit	
	Peter J. Macchiarolo	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>08/23/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 08/23/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

3. The abstract of the disclosure is objected to because it is not in proper form. Correction is required. See MPEP § 608.01(b).
4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Obvious-Type Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

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F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

6. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

7. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. **Claims 1, 2, and 4-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 10/505007 to Tachibana et al ("Tachibana," published as US PG PUB 2005/0156524) in view of Makino (USPN 6313580; "Makino"). Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons.**

Instant Application	Tachibana
<p>Claim 1 recites a plasma display panel comprising:</p> <p>a first electrode and a second electrode which are disposed in parallel with each other on a first substrate;</p> <p>a third electrode disposed on a second substrate in a direction orthogonal to the first electrode and the second electrode, the second substrate being disposed to face the first substrate with a discharge space therebetween;</p>	<p>Claim 1 claims a plasma display panel comprising:</p> <p>a first electrode and a second electrode which are disposed in parallel with each other on a first substrate, and which are covered with a dielectric layer;</p> <p>a third electrode disposed on a second substrate in a direction orthogonal to the first electrode and the second electrode, the second substrate being disposed to face the first substrate with a discharge space therebetween;</p>

<p>a fourth electrode disposed on the second substrate in such a manner as to be parallel with the first electrode and the second electrode;</p> <p>and a first discharge space and a second discharge space which are formed on the second substrate by being partitioned by a barrier rib, wherein a main discharge cell for performing a discharge with the first electrode, the second electrode and the third electrode is formed in the first discharge space, and a priming discharge cell for performing a discharge with the fourth electrode and at least one of the first electrode and the second electrode is formed in the second discharge space, and</p> <p>in the second discharge space, the fourth electrode is formed on a dielectric layer and is disposed closer to the first electrode and the second electrode than the third electrode.</p>	<p>a fourth electrode disposed on the second substrate in such a manner as to be parallel with the first electrode and the second electrode;</p> <p>and a first discharge space and a second discharge space which are formed on the second substrate by being partitioned by a barrier rib, wherein a main discharge cell for performing a discharge with the first electrode, the second electrode and the third electrode is formed in the first discharge space, and a priming discharge cell for performing a discharge with the fourth electrode and at least one of the first electrode and the second electrode is formed in the second discharge space, and</p> <p>Although Tachibana is silent to the fourth electrode being formed on a dielectric layer and is disposed closer to the first electrode and the second electrode than the third electrode, Tachibana infers this configuration. Furthermore, Makino teaches in figure 5 this would have been an obvious modification to allow for less power consumption, improved protection of the fourth electrode, and more accurate display cell priming.</p>
<p>Claim 2 recites the third electrode is covered with the dielectric layer.</p>	<p>Claim 2 of Tachibana7 is silent to the third electrode being covered with the dielectric layer, but infers this configuration in claim 1. Furthermore, Makino teaches in figure 5 this configuration allows for protection of the third electrode.</p>
<p>Claims 4-7 recite a method for manufacturing the plasma display panel of claim 1 comprising the steps of forming, filling, and firing.</p>	<p>Claim 1 of Tachibana7 is silent to a method for manufacturing the device.</p> <p>However, one skilled in the art will recognize that manufacturing such a device will comprise the recited steps of forming, filling, and firing. Hence, the structure taught by Tachibana7 meets Applicant's recited method step limitations.</p>

9. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1, 2, and 4-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of copending Application No. 10/505077 to Tachibana et al ("Tachibana7," published as US PG PUB 2005/0104807) in view of Makino. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons.

Instant Application	Tachibana7
<p>Claim 1 recites a plasma display panel comprising:</p> <p>a first electrode and a second electrode which are disposed in parallel with each other on a first substrate;</p> <p>a third electrode disposed on a second substrate in a direction orthogonal to the first electrode and the second electrode, the second substrate being disposed to face the first substrate with a discharge space therebetween;</p> <p>a fourth electrode disposed on the second substrate in such a manner as to be parallel with the first electrode and the second electrode;</p> <p>and a first discharge space and a second discharge space which are formed on the second substrate by being partitioned by a barrier rib, wherein a main discharge cell for performing a discharge with the first electrode, the second electrode and the third electrode is formed in the first discharge space, and a priming discharge cell for performing a discharge with the fourth electrode and at least one of the first electrode and the second electrode is formed in the second discharge space, and</p> <p>in the second discharge space, the fourth electrode is formed on a dielectric layer and is disposed closer to the first</p>	<p>Claim 1 of Tachibana claims a plasma display panel comprising:</p> <p>a first electrode and a second electrode which are disposed in parallel with each other on a first substrate;</p> <p>a third electrode disposed on a second substrate in a direction crossing the first electrode and the second electrode, the second substrate being disposed to face the first substrate with a discharge space therebetween;</p> <p>a fourth electrode disposed on the second substrate in such a manner as to be parallel with the first electrode and the second electrode;</p> <p>and a first discharge space and a second discharge space which are formed on the second substrate by being partitioned by a barrier rib, wherein the first discharge space forms a main discharge space for performing a discharge with the first electrode, the second electrode and the third electrode, and the second discharge space forms a priming discharge space for performing a discharge with the fourth electrode and at least one of the first electrode and the second electrode.</p> <p>Tachibana7 is silent to the fourth electrode being formed on a dielectric layer and disposed closer to the first and second</p>

electrode and the second electrode than the third electrode.	electrode than to the third electrode. However, Makino teaches in figure 5 this would have been an obvious modification to allow for less power consumption, improved protection of the fourth electrode, and more accurate display cell priming.
Claim 2 recites the third electrode is covered with the dielectric layer.	Claim 2 of Tachibana7 is silent to the third electrode being covered with the dielectric layer, but infers this configuration in claim 1. Furthermore, Makino teaches in figure 5 this configuration allows for protection of the third electrode.
Claims 4-7 recite a method for manufacturing the plasma display panel of claim 1 comprising the steps of forming, filling, and firing.	Claim 1 of Tachibana7 is silent to a method for manufacturing the device. However, one skilled in the art will recognize that manufacturing such a device will comprise the recited steps of forming, filling, and firing. Hence, the structure taught by Tachibana7 meets Applicant's recited method step limitations.

11. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. The following is taken from MPEP § 821.03: Where applicant voluntarily presents claims to the product and process in separate applications (i.e., no restriction requirement was made by the Office), and one of the applications issues as a patent, the remaining application may be rejected under the doctrine of obviousness-type double patenting, where appropriate (see MPEP § 804 - § 804.03), and applicant may overcome the rejection by the filing of a terminal disclaimer under 37 CFR 1.321(c) where appropriate. Similarly, if copending applications separately present product and process claims, provisional obviousness-type double patenting rejections should be made where appropriate.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. The limitation in independent claims 1 and 4, “the fourth electrode is formed on a dielectric layer and is disposed closer to the first electrode and the second electrode than the third electrode,” is not clear. The Examiner gleans from the drawings that the distance from the fourth electrode to the first or second electrode is greater than the distance from the fourth electrode to the third electrode. The remaining claims are rejected due to their dependency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Makino (USPN 6313580; “Makino”).

16. Regarding claim 1, Makino shows in figure 5, a plasma display panel comprising: a first electrode (12) and a second electrode (13) which are disposed in parallel with each other on a first substrate (10); a third electrode (19) disposed on a second substrate (11) in a direction orthogonal to the first electrode and the second electrode, the second substrate being disposed to face the first substrate with a discharge space therebetween; a fourth electrode (30) disposed on the second substrate in such a manner as to be parallel with the first electrode and the second electrode; and a first discharge space and a second discharge space which are formed on the second substrate by being partitioned by a barrier rib (17), wherein a main discharge cell (32) is formed in the first discharge space, and a priming discharge cell (31) is formed in the second discharge space, and in the second discharge space, the fourth electrode is formed on a dielectric layer (15b labeled in fig 4, not labeled in figure 5) and is disposed closer to the first electrode and the second electrode than the third electrode.

17. The Examiner notes that the limitations, “a main discharge cell for performing a discharge with the first electrode, the second electrode and the third electrode”, and “a priming discharge cell for performing a discharge with the fourth electrode and at least one of the first

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electrode and the second electrode” are an intended use type limitation. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

18. Regarding claim 2, Makino shows in figure 5 the third electrode is covered with the dielectric layer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Makino in view of Otani et al (USPN 6674238; “Otani”).

20. Regarding claim 3, Makino is silent to the barrier rib being formed of a longitudinal rib part extending in the direction orthogonal to the first electrode and the second electrode, and a lateral rib part for forming a gap part continuous in parallel with the first electrode and the second electrode, and the gap part forms the second discharge space.

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21. However, Otani teaches in figure 3 that this configuration allows for reduced starting voltage (column 2, lines 62 to 66).

22. Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Makino with the barrier rib configuration of Makino.

23. **Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makino.**

24. Regarding claims 4-7, Makino discloses the plasma display panel (discussed above), but is silent to a method of manufacturing the device.

25. However, one skilled in the art will recognize that manufacturing such a device will comprise the steps of forming a main discharge cell and a priming discharge cell, forming a dielectric layer by filling dielectric paste after the barrier rib formation is formed, forming the forth electrode by filling with electrode material, and concurrently firing the barrier rib and dielectric layer, and these methods are well known in the art. Hence, the structure taught by Makino meets Applicant's recited method step limitations.

26. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Makino with the method of claims 4-8, since the method steps are obvious in light of the resultant structure.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 5661500 issued to Shinoda et al on August 26, 1997 and US PGPUB

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20010048275 to Nakada is evidence that forming a PDP by forming a dielectric layer by filling dielectric paste after the barrier rib formation is formed, forming the forth electrode by filling with electrode material, and concurrently firing the barrier rib and dielectric layer, is known in the art.


28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375. The examiner can normally be reached on 8:30 - 5:00, M-F.

29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



pjm



JOSEPH WILLIAMS
PRIMARY EXAMINER